What is claimed is:

CLAIMS

1. A method of manufacturing a bipolar graphite article, comprising:

(a) forming from graphite material, a first component having an operative side and a back side, and having a protrusion formed on its back side;

(b) forming from graphite material, a second component having an operative side and a back side, and having a recess formed in its back side, the recess being complementary to the protrusion of the first component; and

(c) assembling the first and second components so that the protrusion of the first component is received in the recess of the second component.

2. The method of claim 1, wherein:

step (a) comprises embossing a sheet of resin-impregnated graphite material to form the first component.

3. The method of claim 2, wherein the sheet of resin-impregnated graphite material is uncured at the time of step (a).

4. The method of claim 3, which further comprises curing the resin-impregnated graphite material.

5. The method of claim 1, wherein:

step (a) comprises compressing a particulate resin impregnated graphite material.

6. The method of claim 5, wherein the resin impregnated graphite material is uncured at the time of step (a).

7. The method of claim 6, which further comprises curing the resin impregnated graphite material.

8. The method of claim 1, wherein:

step (c) includes pressing the first and second components together.

9. The method of claim 8, wherein:

in step (a), the graphite material is resin impregnated, uncured material; and

curing occurs during the pressing step.

10. A method of manufacturing a bipolar article for a fuel cell, comprising:

(a) providing first and second sheets of a compressed mass of expanded graphite particles, each sheet having first and second parallel opposed surfaces;

(b) impregnating the sheets with a resin to form uncured resin impregnated sheets;

(c) calendering the uncured resin impregnated sheets to form first and second calendered uncured resin impregnated sheets;

(d) embossing the first and second calendered uncured resin impregnated sheets, thereby:

(1) forming from the first sheet a first component having a protrusion defined thereon; and

(2) forming from the second sheet a second component having a recess defined thereon;

(e) pressing the first and second components together with the protrusion of the first component received in the recess of the second component; and

(f) curing the resin of the components and thereby bonding the first and second components together to form the bipolar article.